



United States Steel Corporation
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David W. Hacker
 Attorney-Environmental

March 5, 2010

VIA OVERNIGHT DELIVERY

Attn: Compliance Tracker, AE-17J
 Air Enforcement and Compliance Assurance Branch
 U.S. Environmental Protection Agency
 Region 5
 77 West Jackson Boulevard
 Chicago, IL 60604

**Re: United States Steel Corporation
 Gary Works (GW)**

Dear U. S. EPA Region V Representative:

On or about November 5, 2009, United States Steel Corporation (U. S. Steel) received a Clean Air Act §114 Request for Information regarding visible emissions from its blast furnace operations at its Gary Works. In response to that request, U. S. Steel is providing the requested information and data on the enclosed disk. All visible emission observations (VEOs) required by U. S. EPA's request were conducted by third party certified visible emission observers from OCS Environmental, Inc. (OCS.) It is significant to note that U. S. Steel and OCS did not observe any deviations from the 20% standard during the observation period. Enclosed in the attached disk are the following:

- Certification by Gary Works Responsible Official
- Summary of Blast Furnace VEOs (including tops, equalization valves, bells; dirty bleeder events; beaching), as well as additional requested information regarding reason, duration, etc., as specified by the § 114 Request.
- Bleeder Opening Spreadsheet
- Information regarding Beaching
- Visible Emission Record Forms for Blast Furnaces – organized by week

Should you have any questions regarding this response or the attachments, please contact me. A certification statement regarding this response is provided on the following page as well as on the enclosed disk.

Sincerely,

David W. Hacker

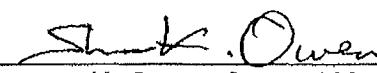
Enclosure
 Attachment

Attn: Compliance Tracker, AE-17J
March 5, 2010
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cc: Sabrina Argentieri, Esq. (USEPA) – cover letter only via email
Sharon Owen (USS) – cover letter only via email
David Smiga, Esq. (USS) – cover letter only via email
Tishie Woodwell (USS) – cover letter only via email
Mark Jeffrey (USS)
Robert Lange (USS)
James Alexander (USS)

CERTIFICATION

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to section 113(c)(2) of the Act, and 18 U.S.C. §§ 1001 and 1341.



Sharon K. Owen, General Manager
United States Steel Corporation
Gary Works

3-4-2010

Date

U. S. Steel
Gary Works
USEPA CAA § 114 Request Blast Furnace Readings

Date	Tops, EV, Bells ¹	Method 9 Observations ² (6 min avg)
11/19/09	3 series of observations – all 0%	#6 BF planned bleeder – (0%)
11/20/09	3 series of observations – all 0%	#6 BF unplanned bleeder – (0%)
11/21/09	3 series of observations – all 0% Method 9 on #4 BF top 5-10%	
11/22/09	3 series of observations – all 0%	#8 BF planned bleeder (0%)
11/23/09	3 series of observations – all 0% Method 9 on #4 BF top	
11/24/09	3 series of observations – all 0% Method 9 on #4 top	#4 BF unplanned bleeder (0%)
11/25/09	3 series of observations – all 0%	
11/26/09	Holiday	
11/27/09	Holiday	
11/28/09	3 series of observations – all 0%	
11/29/09	3 series of observations – all 0%	#8 BF planned bleeder (0%) #6 BF planned bleeder (0%)
11/30/09	3 series of observations – all 0%	#8 BF planned bleeder (0%)
12/01/09	3 series of observations – all 0%	#14 BF planned bleeder (0%)
12/02/09	3 series of observations – all 0%	
12/03/09	3 series of observations – all 0%	#8 BF planned bleeder (0%) #8 BF planned bleeder (0%) Iron Beaching
12/04/09	3 series of observations – all 0%	#14 BF planned bleeder (0%)
12/05/09	3 series of observations – all 0%	
12/06/09	3 series of observations – all 0%	
12/07/09	3 series of observations – all 0%	#8 BF planned bleeder (0%)
12/08/09	3 series of observations – all 0%	#6 BF planned bleeder (0%) #6 BF planned bleeder (0%)

See comments
on 12/1/09
objects up to
4/6

3/5/10
111

**U. S. Steel
Gary Works
USEPA CAA § 114 Request Blast Furnace Readings**

12/09/09	3 series of observations – all 0%	
12/10/09	3 series of observations – all 0%	#4 BF planned bleeder (0%) #4 BF planned bleeder (0%) #8 BF unplanned bleeder (0%) Iron Beaching (0%)
12/11/09	3 series of observations – all 0%	Iron Beaching (0%)
12/12/09	3 series of observations – all 0%	#4 BF unplanned bleeder (0%) #6 BF unplanned bleeder (0%)
12/13/09	3 series of observations – all 0%	#4 BF unplanned bleeder (0%) #6 BF unplanned bleeder (0%) #8 BF planned bleeder (0%)
12/14/09	3 series of observations – all 0%	#14 BF planned bleeder (0%) #4 BF unplanned bleeder (0%) #4 BF planned bleeder (0%) Iron Beaching
12/15/09	3 series of observations – all 0%	#4 BF unplanned bleeder (0%) #14 BF planned (0%) #6 BF unplanned (0%) #4 BF top Method 9 #4 BF planned bleeder (0%) #14 BF Iron beaching (0%)
12/16/09	3 series of observations – all 0%	#4 BF planned bleeder (0%) #14 BF planned bleeder (0%) Iron Beaching (0%)
12/17/09	3 series of observations – all 0%	#4 BF planned bleeder (0%) #14 BF planned bleeder (0%)
12/18/09	3 series of observations – all 0%	#4 BF planned bleeder (0%) #6 BF Top Method 9 (6%)
12/19/09	3 series of observations – all 0%	#14 BF planned bleeder (0%)
12/20/09	3 series of observations – all 0%	#14 BF planned bleeder (0%)

**U. S. Steel
Gary Works
USEPA CAA § 114 Request Blast Furnace Readings**

12/21/09	3 series of observations – all 0%	#14 BF planned bleeder (0%) #4 BF unplanned bleeder (0%)
12/22/09	3 series of observations – all 0%	#4 BF planned bleeder (0%)
12/23/09	3 series of observations – all 0%	
12/24/09	Holiday	
12/25/09	Holiday	
12/26/09	3 series of observations – all 0%	#8 BF planned bleeder (0%) Iron Beaching
12/27/09	3 series of observations – all 0%	
12/28/09	3 series of observations – all 0%	#6 BF planned bleeder (0%) #6 BF planned bleeder (0%)
12/29/09	3 series of observations – all 0%	
12/30/09	3 series of observations – all 0%	
12/31/09	3 series of observations – all 0%	
01/01/10	3 series of observations – all 0%	
01/02/10	3 series of observations – all 0%	#8BF planned bleeder (0%)
01/03/10	3 series of observations – all 0%	
01/04/10	3 series of observations – all 0%	#4 BF unplanned bleeder (0%)
01/05/10	3 series of observations – all 0%	#4 BF planned bleeder (0%) #4 BF unplanned bleeder (0%) #4 BF Top Method
01/06/10	3 series of observations – all 0%	
01/07/10	3 series of observations – all 0%	#8 BF planned bleeder (0%)
01/08/10	3 series of observations – all 0%	
01/09/10	3 series of observations – all 0%	
01/10/10	3 series of observations – all 0%	
01/11/10	3 series of observations – all 0%	
01/12/10	3 series of observations – all 0%	#4 BF unplanned bleeder
01/13/10	3 series of observations – all 0%	
01/14/10	3 series of observations – all 0%	#6 BF planned bleeder

**U. S. Steel
Gary Works
USEPA CAA § 114 Request Blast Furnace Readings**

01/15/10	3 series of observations – all 0%	
01/16/10	3 series of observations – all 0%	#8 BF planned bleeder (0%)
01/17/10	3 series of observations – all 0%	
01/18/10	3 series of observations – all 0%	
01/19/10	3 series of observations – all 0%	#8 BF planned bleeder 40% <i>the O's</i>
01/20/10	3 series of observations – all 0%	#8BF planned bleeder (0%)
01/21/10	3 series of observations – all 0%	#4 BF planned bleeder (0%) Iron Beaching 5-15%
01/22/10	3 series of observations – all 0%	
01/23/10	3 series of observations – all 0%	
01/24/10	3 series of observations – all 0%	
01/25/10	3 series of observations – all 0%	#4 BF planned bleeder (0%)
01/26/10	3 series of observations – all 0%	
01/27/10	3 series of observations – all 0%	
01/28/10	3 series of observations – all 0%	#4BF unplanned bleeder (0%)
01/29/10	3 series of observations – all 0%	
01/30/10	3 series of observations – all 0%	#4 BF unplanned bleeder (0%)
01/31/10	3 series of observations – all 0%	
02/01/10	3 series of observations – all 0%	
02/02/10	3 series of observations – all 0%	
02/03/10	3 series of observations – all 0%	
02/04/10	3 series of observations – all 0%	
02/05/10	3 series of observations – all 0%	#8BF planned bleeder (0%)
02/06/10	3 series of observations – all 0%	
02/07/10	3 series of observations – all 0%	
02/08/10	3 series of observations – all 0%	
02/09/10	3 series of observations – all 0%	
02/10/10	3 series of observations – all 0%	#8BF unplanned bleeder (0%)
02/11/10	3 series of observations – all 0%	#8BF planned bleeder (0%)
02/12/10	3 series of observations – all 0%	

**U. S. Steel
Gary Works
USEPA CAA § 114 Request Blast Furnace Readings**

02/13/10	3 series of observations – all 0%	#4BF unplanned bleeder (0%)
02/14/10	3 series of observations – all 0%	
02/15/10	3 series of observations – all 0%	#6BF planned bleeder (0%)
02/16/10	3 series of observations – all 0%	#4BF planned bleeder (0%)
02/17/10	3 series of observations – all 0%	

Footnotes:

1 – U. S. Steel Gary Works performed checks and VEOs of Blast Furnace tops, EQ valves, and bells as required by the CAA § 114 Request using the protocol agreed to by USEPA and U. S. Steel. In addition, if during the reading of bleeder events or at other times, if emissions were observed from a blast furnace top, VEOs were recorded and are provided in the attached files.

2 – Method 9 observations are provided in the attached files for all VEOs from bleeders, tops, EQ valves, bells, and beaching activities.

U. S. Steel Gary Works Blast Furnace No. 4 Bleeder Events - Information

BF 4

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
11/19/2009	zero bleeder openings						
11/20/2009	zero bleeder openings						
11/21/2009	zero bleeder openings						
11/22/2009	zero bleeder openings						
11/23/2009	zero bleeder openings						
11/24/2009	5:12:15	10:55:17	20582	N	NA	NA	taking furnace off
11/25/2009	zero bleeder openings						
11/26/2009	zero bleeder openings						
11/27/2009	zero bleeder openings						
11/28/2009	zero bleeder openings						
11/29/2009	0:10:10	3:09:15	10745	N	NA	NA	taking furnace off
11/30/2009	zero bleeder openings						
12/1/2009	zero bleeder openings						
12/2/2009	zero bleeder openings						
12/3/2009	zero bleeder openings						
12/4/2009	zero bleeder openings						
12/5/2009	zero bleeder openings						
12/6/2009	zero bleeder openings						
12/7/2009	zero bleeder openings						
12/8/2009	zero bleeder openings						
12/9/2009	zero bleeder openings						
12/10/2009	6:04:47	22:20:53	58566	N	NA	NA	planned outage
12/11/2009	zero bleeder openings						
12/12/2009	zero bleeder openings						
12/13/2009	zero bleeder openings						
12/14/2009	14:16:36	18:59:12	16956	N	NA	NA	taking furnace off
12/14 #2	18:59:31	18:59:58	27	N	NA	NA	reseat bleeders
12/15/2009	6:27:30	6:27:48	18	Y	slip	taking furnace off	furnace wrecked in AM
12/15 #2	10:27:00	23:59:59	48779	N	NA	NA	furnace off
12/16/2009	zero bleeder openings						furnace off
12/17/2009	zero bleeder openings						furnace off
12/18/2009	0:00:00	19:04:14	68654	N	NA	NA	furnace off
12/19/2009	3:47:06	3:47:23	17	Y	slip	NA	wreck recovery
12/19 #2	4:12:25	4:12:33	8	N	NA	NA	reseat bleeders
12/19 #3	4:12:40	4:12:51	11	N	NA	NA	reseat bleeders
12/19 #4	4:12:56	4:13:07	11	N	NA	NA	reseat bleeders

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 4 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
12/19 #5	6:13:13	14:03:43	28230	N	NA	NA	reseat bleeders/fce off
12/20/2009	16:29:44	18:55:32	8748	N	NA	NA	taking furnace off
12/20 #2	23:21:29	23:21:35	6	Y	slip	NA	wreck recovery
12/20 #3	23:23:15	23:23:28	13	N	NA	NA	reseat bleeders
12/20 #4	23:24:46	23:24:59	13	N	NA	NA	reseat bleeders
12/20 #5	23:25:04	23:25:16	12	N	NA	NA	reseat bleeders
12/21/2009	0:01:24	0:01:32	8	Y	slip	NA	wreck recovery
12/21 #2	0:26:46	0:26:53	7	Y	slip	NA	wreck recovery
12/21 #3	1:53:54	1:54:05	11	N	NA	NA	reseat bleeders
12/21 #4	1:54:08	1:54:17	9	N	NA	NA	reseat bleeders
12/21 #5	1:54:23	1:54:36	13	N	NA	NA	reseat bleeders
12/22/2009	10:47:28	13:45:37	10689	N	NA	NA	taking furnace off
12/22 #2	13:46:26	13:46:48	22	N	NA	NA	reseat bleeders
12/23/2009	zero bleeder openings						
12/24/2009	zero bleeder openings						
12/25/2009	zero bleeder openings						
12/26/2009	zero bleeder openings						
12/27/2009	zero bleeder openings						
12/28/2009	zero bleeder openings						
12/29/2009	zero bleeder openings						
12/30/2009	zero bleeder openings						
12/31/2009	zero bleeder openings						
1/1/2010	zero bleeder openings						
1/2/2010	zero bleeder openings						
1/3/2010	21:22	21:22:00	6	Y	gas system issues	NA	gas system issues
1/4/2010	zero bleeder openings						
1/5/2010	3:34:25	5:01:15	5210	N	NA	NA	taking furnace off
1/5 #2	7:43:37	7:44:21	44	N	NA	NA	reseat bleeders
1/5 #3	8:14:21	8:23:27	546	N	NA	NA	reseat bleeders
1/5 #4	8:25:17	8:25:43	26	N	NA	NA	reseat bleeders
1/5 #5	10:15:00	10:15:00	6	N	NA	NA	reseat bleeders
1/6/2010	zero bleeder openings						
1/7/2010	zero bleeder openings						
1/8/2010	zero bleeder openings						
1/9/2010	zero bleeder openings						
1/10/2010	zero bleeder openings						
1/11/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 4 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
1/12/2010	9:07:42	12:11:59	11057	N	NA	NA	taking furnace off
1/13/2010	zero bleeder openings						
1/14/2010	zero bleeder openings						
1/15/2010	zero bleeder openings						
1/16/2010	zero bleeder openings						
1/17/2010	zero bleeder openings						
1/18/2010	zero bleeder openings						
1/19/2010	zero bleeder openings						
1/20/2010	zero bleeder openings						
1/21/2010	5:12:45	5:13:53	8	Y	NA	NA	reseat bleeders
1/21 #2	5:21:30	5:21:56	26	N	NA	NA	reseat bleeders
1/21 #3	5:51:57	22:59:27	61650	N	NA	NA	taking furnace off
1/22/2010	zero bleeder openings						
1/23/2010	zero bleeder openings						
1/24/2010	zero bleeder openings						
1/25/2010	12:14:36	14:50:05	9329	N	NA	NA	taking furnace off
1/26/2010	zero bleeder openings						
1/27/2010	zero bleeder openings						
1/28/2010	zero bleeder openings						
1/29/2010	zero bleeder openings						
1/30/2010	zero bleeder openings						
1/31/2010	zero bleeder openings						
2/1/2010	zero bleeder openings						
2/2/2010	zero bleeder openings						
2/3/2010	zero bleeder openings						
2/4/2010	zero bleeder openings						
2/5/2010	zero bleeder openings						
2/6/2010	zero bleeder openings						
2/7/2010	zero bleeder openings						
2/8/2010	zero bleeder openings						
2/9/2010	zero bleeder openings						
2/10/2010	zero bleeder openings						
2/11/2010	zero bleeder openings						
2/12/2010	zero bleeder openings						
2/13/2010	zero bleeder openings						
2/14/2010	zero bleeder openings						
2/15/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 4 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
2/16/2010	8:41:53	9:33:52	3099	N	NA	NA	taking furnace off

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 6 Bleeder Events - Information

BF 6							
Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
11/19/2009	5:41	10:54	18780	N	NA	NA	taking furnace off
11/20/2009	11:28	13:40	7920	N	NA	NA	taking furnace off
11/20 #2	12:50	12:52	120	N	NA	NA	taking furnace off
11/21/2009	zero bleeder openings						
11/22/2009	zero bleeder openings						
11/23/2009	zero bleeder openings						
11/24/2009	zero bleeder openings						
11/25/2009	zero bleeder openings						
11/26/2009	zero bleeder openings						
11/27/2009	zero bleeder openings						
11/28/2009	zero bleeder openings						
11/29/2009	1:50:16	5:19:39	12563	N	NA	NA	taking furnace off
11/29 #2	15:21:01	15:37:36	995	N	NA	NA	taking furnace off
11/30/2009	zero bleeder openings						
12/1/2009	zero bleeder openings						
12/2/2009	zero bleeder openings						
12/3/2009	12:49:20	18:44:26	21306	N	NA	NA	taking furnace off
12/4/2009	zero bleeder openings						
12/5/2009	0:04:25	3:43:57	13172	N	NA	NA	taking furnace off
12/5 #2	3:44:09	3:44:21	12	N	NA	NA	reseat
12/6/2009	zero bleeder openings						
12/7/2009	23:11	0:00	2940	N	NA	NA	taking furnace off
12/8/2009	0:00:00	10:51:00	39060	N	NA	NA	taking furnace off
12/8 #2	10:54:05	15:59:43	18338	N	NA	NA	taking furnace off
12/9/2009	zero bleeder openings						
12/10/2009	zero bleeder openings						
12/11/2009	zero bleeder openings						
12/12/2009	2:09:41	10:09:40	28799	N	NA	NA	taking furnace off
12/13/2009	16:49:40	16:53:03	203	N	NA	NA	reseat
12/13 #2	16:53:56	16:54:13	17	N	NA	NA	reseat
12/13 #3	17:05:22	17:06:44	82	N	NA	NA	reseat
12/13 #4	18:26:44	18:30:04	200	N	NA	NA	reseat
12/14/2009	zero bleeder openings						
12/15/2009	zero bleeder openings						
12/16/2009	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 6 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
12/17/2009	zero bleeder openings						
12/18/2009	zero bleeder openings						
12/19/2009	zero bleeder openings						
12/20/2009	zero bleeder openings						
12/21/2009	zero bleeder openings						
12/22/2009	zero bleeder openings						
12/23/2009	zero bleeder openings						
12/24/2009	zero bleeder openings						
12/25/2009	zero bleeder openings						
12/26/2009	zero bleeder openings						
12/27/2009	zero bleeder openings						
12/28/2009	7:50:01	13:22:47	19966	N	NA	NA	taking furnace off
12/29/2009	zero bleeder openings						
12/30/2009	zero bleeder openings						
12/31/2009	zero bleeder openings						
1/1/2010	zero bleeder openings						
1/2/2010	zero bleeder openings						
1/3/2010	zero bleeder openings						
1/4/2010	zero bleeder openings						
1/5/2010	zero bleeder openings						
1/6/2010	zero bleeder openings						
1/7/2010	zero bleeder openings						
1/8/2010	zero bleeder openings						
1/9/2010	zero bleeder openings						
1/10/2010	zero bleeder openings						
1/11/2010	zero bleeder openings						
1/12/2010	zero bleeder openings						
1/13/2010	zero bleeder openings						
1/14/2010	5:47:41	13:42:13	28472	N	NA	NA	taking furnace off
1/14 #2	13:48:06	22:31:29	31403	N	NA	NA	taking furnace off
1/14 #3	22:31:43	22:32:03	20	N	NA	NA	reseat
1/15/2010	zero bleeder openings						
1/16/2010	zero bleeder openings						
1/17/2010	zero bleeder openings						
1/18/2010	zero bleeder openings						
1/19/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 6 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
1/20/2010	zero bleeder openings						
1/21/2010	zero bleeder openings						
1/22/2010	zero bleeder openings						
1/23/2010	zero bleeder openings						
1/24/2010	zero bleeder openings						
1/25/2010	zero bleeder openings						
1/26/2010	zero bleeder openings						
1/27/2010	zero bleeder openings						
1/28/2010	zero bleeder openings						
1/29/2010	zero bleeder openings						
1/30/2010	zero bleeder openings						
1/31/2010	zero bleeder openings						
2/1/2010	zero bleeder openings						
2/2/2010	zero bleeder openings						
2/3/2010	zero bleeder openings						
2/4/2010	zero bleeder openings						
2/5/2010	zero bleeder openings						
2/6/2010	zero bleeder openings						
2/7/2010	zero bleeder openings						
2/8/2010	zero bleeder openings						
2/9/2010	zero bleeder openings						
2/10/2010	zero bleeder openings						
2/11/2010	zero bleeder openings						
2/12/2010	zero bleeder openings						
2/13/2010	zero bleeder openings						
2/14/2010	zero bleeder openings						
2/15/2010	10:36:59	12:30:56	6837	N	NA	NA	taking furnace off
2/15 #2	12:31:15	12:31:39	24	N	NA	NA	reseat
2/16/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 8 Bleeder Events - Information

BF 8							
Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
11/19/2009	zero bleeder openings						
11/20/2009	zero bleeder openings						
11/21/2009	0:12:29	3:01:06	10117	N	NA	NA	taking furnace off
11/21 #2	16:50:09	16:59:54	585	N	NA	NA	taking furnace off
11/21 #3	19:04:24	19:25:11	1247	N	NA	NA	taking furnace off
11/22/2009	7:14:15	7:56:34	1339	N	NA	NA	taking furnace off
11/22 #2	7:57:37	12:56:49	17952	N	NA	NA	taking furnace off
11/23/2009	zero bleeder openings						
11/24/2009	zero bleeder openings						
11/25/2009	zero bleeder openings						
11/26/2009	zero bleeder openings						
11/27/2009	zero bleeder openings						
11/28/2009	zero bleeder openings						
11/29/2009	11:09:04	17:50:02	24058	N	NA	NA	taking furnace off
11/30/2009	8:47:42	14:42:25	21283	N	NA	NA	taking furnace off
12/1/2009	zero bleeder openings						
12/2/2009	zero bleeder openings						
12/3/2009	5:59:03	22:23:38	59075	N	NA	NA	taking furnace off
12/3 #2	22:23:41	22:23:52	11	N	NA	NA	reseat
12/4/2009	1:21:00	1:21:10	10	Y	venturi malfunction; operator error	operator retrained	
12/4 #2	1:21:31	1:21:53	15	Y	venturi malfunction; operator error	operator retrained	
12/4 #3	1:22:19	1:22:32	13	Y	venturi malfunction; operator error	operator retrained	
12/4 #4	1:22:54	1:23:08	14	Y	venturi malfunction; operator error	operator retrained	
12/4 #5	1:23:33	1:23:46	13	Y	venturi malfunction; operator error	operator retrained	
12/4 #6	1:24:11	1:24:24	13	Y	venturi malfunction; operator error	operator retrained	
12/4 #7	1:24:52	1:25:06	14	Y	venturi malfunction; operator error	operator retrained	
12/4 #8	1:25:29	1:25:42	13	Y	venturi malfunction; operator error	operator retrained	
12/4 #9	18:34:42	20:55:42	8460	N	NA	NA	taking furnace off
12/5/2009	zero bleeder openings						
12/6/2009	zero bleeder openings						
12/7/2009	10:30:15	16:07:43	20248	N	NA	NA	taking furnace off
12/7 #2	19:11:05	19:11:16	11	Y	slip due to raw material fines	NA	issue resolved itself
12/8/2009	zero bleeder openings						
12/9/2009	zero bleeder openings						
12/10/2009	zero bleeder openings						
12/11/2009	zero bleeder openings						
12/12/2009	zero bleeder openings						
12/13/2009	13:07:17	20:26:29	26352	N	NA	NA	taking furnace off
12/13 #2	20:26:59	20:27:08	9	N	NA	NA	reseat
12/14/2009	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 8 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
12/15/2009	zero bleeder openings						
12/16/2009	zero bleeder openings						
12/17/2009	zero bleeder openings						
12/18/2009	zero bleeder openings						
12/19/2009	zero bleeder openings						
12/20/2009	zero bleeder openings						
12/21/2009	zero bleeder openings						
12/22/2009	zero bleeder openings						
12/23/2009	18:00	0:00:00	21600	N	NA	NA	taking furnace off
12/24/2009	0:00:00	11:17:40	40660	N	NA	NA	taking furnace off
12/25/2009	6:34:00	11:57:00	19380	N	NA	NA	taking furnace off
12/26/2009	5:19:10	16:28:17	40147	N	NA	NA	taking furnace off
12/26 #2	17:24:05	17:24:19	14	N	NA	NA	reseat
12/27/2009	zero bleeder openings						
12/28/2009	zero bleeder openings						
12/29/2009	zero bleeder openings						
12/30/2009	zero bleeder openings						
12/31/2009	zero bleeder openings						
1/1/2010	zero bleeder openings						
1/2/2010	4:38:00	4:38:09	9	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #2	4:39:23	4:39:32	9	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #3	4:40:40	4:40:48	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #4	4:41:17	4:41:25	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #5	4:42:20	4:42:28	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #6	4:43:03	4:43:12	9	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #7	4:43:50	4:43:57	7	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #8	4:44:32	4:44:40	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #9	4:45:14	4:45:22	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #10	4:46:04	4:46:12	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #11	4:47:12	4:47:20	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #12	4:48:08	4:48:16	8	Y	frozen leveling tank	thawed tank	moved heater to area
1/2 #13	5:28:16	9:14:30	13574	N	NA	NA	taking furnace off
1/3/2010	zero bleeder openings						
1/4/2010	zero bleeder openings						
1/5/2010	zero bleeder openings						
1/6/2010	zero bleeder openings						
1/7/2010	5:53	22:22	59315	N	NA	NA	taking furnace off
1/8/2010	zero bleeder openings						
1/9/2010	zero bleeder openings						
1/10/2010	zero bleeder openings						
1/11/2010	zero bleeder openings						
1/12/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works Blast Furnace No. 8 Bleeder Events - Information

Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
1/13/2010	zero bleeder openings						
1/14/2010	zero bleeder openings						
1/15/2010	zero bleeder openings						
1/16/2010	8:52:36	12:42:52	13816	N	NA	NA	taking furnace off
1/16 #2	12:42:55	12:43:05	10	N	NA	NA	reseat
1/17/2010	zero bleeder openings						
1/18/2010	zero bleeder openings						
1/19/2010	10:21:34	15:24:09	18155	N	NA	NA	taking furnace off
1/19 #2	15:25:29	15:25:35	6	N	NA	NA	reseat
1/20/2010	11:50:31	13:21:53	5482	N	NA	NA	taking furnace off
1/21/2010	zero bleeder openings						
1/22/2010	zero bleeder openings						
1/23/2010	zero bleeder openings						
1/24/2010	8:14:11	8:40:42	1591	N	NA	NA	taking furnace off
1/25/2010	zero bleeder openings						
1/26/2010	zero bleeder openings						
1/27/2010	zero bleeder openings						
1/28/2010	zero bleeder openings						
1/29/2010	zero bleeder openings						
1/30/2010	zero bleeder openings						
1/31/2010	zero bleeder openings						
2/1/2010	zero bleeder openings						
2/2/2010	zero bleeder openings						
2/3/2010	zero bleeder openings						
2/4/2010	zero bleeder openings						
2/5/2010	13:47:22	15:57:36	7814	N	NA	NA	taking furnace off
2/6/2010	zero bleeder openings						
2/7/2010	zero bleeder openings						
2/8/2010	zero bleeder openings						
2/9/2010	17:02:43	17:03:55	13	Y	Venturi positioner failed	Put venturi in manual until repaired	
2/9 #2	17:41:58	17:42:10	12	Y	Venturi positioner failed	Put venturi in manual until repaired	
2/10/2010	7:26:28	7:26:38	10	N	NA	NA	reseat
2/10 #2	7:27:10	7:27:18	8	N	NA	NA	reseat
2/11/2010	5:59:55	18:15:35	44140	N	NA	NA	taking furnace off
2/12/2010	18:17:14	18:17:26	12	Y	operator error	retrained operator	adjusted venturi instead of NG valve
2/13/2010	zero bleeder openings						
2/14/2010	zero bleeder openings						
2/15/2010	zero bleeder openings						
2/16/2010	zero bleeder openings						

VEOs provided separately.

U. S. Steel Gary Works
Nos. 4, 6, 8 and 14 Blast Furnaces
Iron Beaching / Kishing Activities

Date	Comments
12/3/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/10/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/11/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/14/2009	#14 BF, No iron was beached, furnace was bottom tapped, but nothing came out
12/15/2009	#14 BF No iron was beached, furnace was bottom tapped, but nothing came out
12/16/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/16/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/16/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
12/20/2009	30 tons of hot metal dumped; BF4 was coming back from wreck with high Si; BF4 HM was blended with BF8 HM, but ladle was overfilled at BF4 and steel couldn't take the high blended Si level. 30 tons of HM was then beached and ladle was refilled with BF8 HM
12/26/2009	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service
1/21/2010	Kishing a ladle: Sub car was brought into beach facility and turned over to dump slag and prepare ladle for service

U. S. Steel Gary Works Blast Furnace No. 14 Bleeder Events - Information

BF 14							
Date	Start Time	End Time	Duration (sec)	Unplanned	Root Cause	Corrective Action	Comments
11/29/2009	16:34	22:39	21900	N	NA	NA	taking furnace off
11/29 #2	22:39	22:40	10	N	NA	NA	reseat
11/29 #3	22:40	22:40	9	N	NA	NA	reseat
11/29 #4	22:40	22:40	10	N	NA	NA	reseat
11/29 #5	22:40	22:41	9	N	NA	NA	reseat
11/29 #6	22:41	22:41	7	N	NA	NA	reseat
12/1/2009	6:59	13:38	23940	N	NA	NA	taking furnace off
12/1 #2	13:39	13:39	18	N	NA	NA	reseat
12/1 #3	13:40	13:40	7	N	NA	NA	reseat
12/1 #4	13:40	13:40	7	N	NA	NA	reseat
12/1 #5	13:40	13:40	6	N	NA	NA	reseat
12/1 #6	13:40	14:16	2127	N	NA	NA	taking furnace off
12/1 #7	14:16	14:17	74	N	NA	NA	taking furnace off
12/4/2009	16:25	23:22	25020	N	NA	NA	taking furnace off
12/4 #2	23:22	23:22	8	N	NA	NA	reseat
12/4 #3	23:22	23:22	8	N	NA	NA	reseat
12/4 #4	23:22	2:31	11314	N	NA	NA	taking furnace off
12/5/2009	2:31	2:31	10	N	NA	NA	reseat
12/5 #2	2:31	2:31	9	N	NA	NA	reseat
12/5 #3	2:47	3:09	1326	N	NA	NA	taking furnace off
12/7/2009	16:43	21:37	17640	N	NA	NA	taking furnace off
12/7 #2	21:37	21:37	13	N	NA	NA	reseat
12/7 #3	21:37	21:37	10	N	NA	NA	reseat
12/7 #4	21:38	21:38	11	N	NA	NA	reseat
12/7 #5	21:38	21:38	12	N	NA	NA	reseat
12/7 #6	21:38	21:38	10	N	NA	NA	reseat
12/14/2009	14:48	18:49	14460	N	NA	NA	taking furnace off
12/14 #2	18:49	20:31	6107	N	NA	NA	taking furnace off
12/14 #3	20:31	20:31	9	N	NA	NA	reseat
12/14 #4	20:31	20:32	8	N	NA	NA	reseat
12/15/2009	7:43	12:45	18120	N	NA	NA	taking furnace off
12/16/2009	5:56	10:52	17760	N	NA	NA	taking furnace off
12/16 #2	11:22	12:12	2968	N	NA	NA	taking furnace off
12/21/2009	6:22	left open for reline left open for reline (reline should end in early March)		N	bleeder left open for reline	NA	bleeder left open for reline
2/19/2010							

VEOs provided separately.